

Date: Fri, 22 Apr 94 18:35:26 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #445
To: Info-Hams

Info-Hams Digest Fri, 22 Apr 94 Volume 94 : Issue 445

Today's Topics:

 10 M repeaters ?
 April 20 Mid-Atlantic Hamfest List
 ARLB036 FCC CALL SIGN UPDATE
 Confiscated HT
 HDN Releases
 IPS Daily Report - 20 April 94
 Keplerian Bulletin 15 ARLK015
 Manual or copy needed -Heathkit DX-20
 Missing: Good HF Propagation
 Nicad Batteries -- The Official Word
 ORBS\$112.OSCAR.AMSAT

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 20 Apr 1994 14:12:53 -0700
From: swrinde!gatech!newsxfer.itd.umich.edu!zip.eecs.umich.edu!yeshua.marcam.com!
hookup!news2.sprintlink.net!news.sprintlink.net!news.world.net!news.teleport.com!
news.teleport.com!@ihnp4.ucsd.edu
Subject: 10 M repeaters ?
To: info-hams@ucsd.edu

Having watched 10 FM over the last 25 years or so go from only one simplex
channel on 29.600 to the relative mess that it has become now is
unfortunate. Not only do we have people trying to run everyone off of 29.60
having a QSO (claiming that it's the "calling" channel) to dozens of
repeaters all in carrier squelch on the four repeater channels. There just

isn't room for any more repeaters on 10FM - the four channels we have already are unusable. I don't know what it sounds like from the East coast, but it is a mess from the west coast.

Some years ago, a group here in Oregon wanted to put up a 10 FM repeater in carrier squelch. It was necessary to give live demonstrations to the frequency coordinators as to why any coordinated repeaters had to have MANDATORY tone squelch in order to receive a coordination for the repeater sanction. Fortunately, S. California and some other areas have followed the same requirements. Now if only the rest of the repeaters would follow the same, we would be able to select just which repeater we wished to use, instead of bringing up 10-15 repeaters at a time howling against each other.

Anyone considering "putting up a 10M repeater to help DX stations around the country" - Please Don't - we have too many already. If you feel you MUST put up a 10M repeater, PLEASE use tone squelch. Maybe someday we can obtain more spectrum for repeaters and we won't have this problem.

C U on 10 FM,

Larry Johnson K7LJ

--

larryj@teleport.com Public Access User --- Not affiliated with TECHbooks
Public Access UNIX and Internet at (503) 220-0636 (1200/2400, N81)

Date: 20 Apr 1994 19:21:51 -0400
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.intercon.com!news1.digex.net!
access.digex.net!not-for-mail@network.ucsd.edu
Subject: April 20 Mid-Atlantic Hamfest List
To: info-hams@ucsd.edu

MID-ATLANTIC HAMFEST LISTING

April 20, 1994

The following is a listing of known hamfests in the Mid-Atlantic area. I will update this list as necessary. Please send any additions or corrections to me at cps@access.digex.net so that others may benefit.

If you know of any hamfests not in this list, please let me know about them so that they may be included in the next edition.

Hamfests that I know of, but need details: Gaithersburg, MD (Sept),

York, PA (Sept).

Thanks,

Chris Smolinski, N3JLY

May 7, 1994:

Kent Island ARC, 8AM-2PM, \$4 adm, free tailgating
VFW, VFW Road, Behind Sleep Inn, Kent Island, MD
Talk-In 146.94/146.34

May 15, 1994:

HAMFEST '94, 7AM-2PM, \$5 adm, \$8 tailgating, \$12 tables.
Middletown Grange Fairgrounds, Penns Park Rd, Wrightstown, PA
Talk-In 147.09/R, 146.52 simplex
Contact: George Brechman N3HBT (215) 443-5656

May 21, 1994:

Cherryville Hamfest, 8AM-2PM, \$6 admission, \$10 tailgating, \$15 tables
Warren County Farmers Fairgrounds, Rt 518 North, Harmony, NJ I78-exit 3.
Contact Keith Burt, KF5FK, (908) 788-4080 before 10PM
VE Test Session Contact Marty Grozinski, NS2K, (908) 806-6944 before 9PM
Talk-In 147.375+ & 146.820-

May 22, 1994:

Great Hagerstown Hamfest, 8AM-3:30PM, \$5 adm, \$5 tailgating, \$20 tables
Hagerstown Jr College Rec Center, Exit 32B from I-70, right at Edgewood Rd
Contact Page Pyne or Fred Bailey (301) 714-0688
VE Exams 9AM contact Pat KQ8E at (304) 289-3576
Talk-In 146.34+

May 29, 1994:

Memorial Day Hamfest, 8AM-3PM, \$5 adm, \$5 tailgating, \$20 tables
Howard County Fairgrounds, West Friendship, MD
Off Interstate 70, west of Baltimore, MD
Contact: Mel Seyle (301) 249-614
License Exams: Les McClure (410) 833-8667

Talk-In: 146.7, 224.76 and 444.00

June 5, 1994:

Ole Virginia Hams ARC Hamfest, 8AM-3PM \$5 adm, \$5 tailgating
Prince William County Fairgrounds, SR 234 Manassas, VA
Talk-In 146.97-, 224.66-
Contact Jim Hawk N30DZ, PO Box 1255 Manassas, VA 22110

June 18, 1994:

Raritan Valley Radio Club Hamfest, 8AM-2PM \$5 adm, \$7 tailgating
Columbia Park, Dunellen, NJ (Central NJ)
Talk-In 146.625-, 53.73- (PL110.9), 224.8- (PL110.9), 442.250+
(PL141.3), 146.52
Contact Bill K2DI wmb@joplin.att.com, John WA2F (908) 722-9045 (before
8:30 PM) or Bob WB2CVL (908) 846-2056 (before 8:30 PM)
Tailgating registration recommended -- checks payable to "RVRC"
Send to Guy KE2CG, 240 Grant Ave, Piscataway NJ 08854

June 19, 1994:

Father's Day Hamfest, 8AM-3PM, \$5 adm, \$5 tailgating
Walkersville Fire Co, Walkersville, MD, rt 15 to rt 26 to rt 194
Frederick Amateur Radio Club, PO Box 1260, Frederick, MD 21702
Talk-In 146.52, 147.06+, 448.425-

July 10, 1994:

Maryland Hamfest, 8AM-?, tailgating opens at 6AM
Timonium Fairgrounds, York Rd, I-695 to I-83 to Timonium Rd
BRATS, PO Box 5915, Baltimore, MD 21208
VE Exams 10AM, Pre-registration required
Talk-In 147.03+, 224.96-

July 16, 1994:

Red Rose Repeater Assn, 9AM-3PM \$5 adm, \$5 tailgating, \$20 tables
McCaskey High School, Reservoir & N Franklin Streets, Lancaster, PA
Red Rose Repeater Assn, PO Box 8316, Lancaster, PA 17604
Talk-In 147.015+

August 7, 1994:

Southern Patuxent Hamfest, 7AM-2PM, \$5 adm, \$5 tailgating, \$25 tables
Prince George County Equestrian Center, Upper Marlboro, MD
Rt 301/ Rt 4, exit 11-A (Rt 4 Pennsylvania Ave) from DC Beltway I-495
Contact: Southern Patuxent ARC, PO Box 399, St Leonard, MD 20685
(410) 586-2177
Talk-In 147.15

Hamfest 94, 8AM-?, \$5 adm, \$3 tailgating
Bucks County Drive In Theater, rt 611, 6mi N of Pa Turnpike exit 27
Mid Atlantic Radio Club, PO Box 352, Villanova, PA 19085
Talk-In 147.06, 145.13

August 14, 1994:

SARA Carroll County Hamfest, 8AM-?, \$5 adm, \$5 tailgating, \$8 tables
Carroll County Ag Center, Smith Ave, Westminster, MD
Contact: Alan Parker, KS3L, (410) 859-1475
SARA Hamfest, 607 Brentwood Rd, Linthicum, MD 21090
Talk-In 146.52, 224.68, 224.64

Hamfest & Computerfest, 8AM-?, \$4 adm, \$7 tailgating, \$25 tables
Career Institute of Technology, Easton, PA
Delaware-Lehigh ARC, RR 4 Greystone Bldg, Nazareth, PA 18064-9211
(610) 820-9110
Talk-In 146.70

September 9 & 10, 1994:

Queen Wilhelmina State Park, Mena, Arkansas. \$2 park entrance fee, \$5 adm.
Contact Gerald Wallis, N5KKD, (501) 524-3094

September 17&18, 1994:

Virginia Beach Hamfest \$6 adm, \$15 tailgating, \$30 tables, \$125 booths
Virginia BEach Pavillion
Manny Steiner, K4DOR, 3512 Olympia Lane, Virginia Beach, VA 23452
(804) HAM-FEST

September 18, 1994

South Jersey Radio Assn, 8AM-3PM, \$5 admission, \$5 tailgating

Pennsauken High School Parking Lot, near US rt 130 / NJ rt 73
Contact Diane Nafis, N2LCQ, (609) 227-6281, (609) 228-8088
VEC Test Session registration at 9:30 AM
Talk-In 145.290-

October 30, 1994:
Mason Dixon Hamfest 8AM-?, \$5 adm, \$5 tailgating, \$15 tables
Carroll County Ag Center, Westminster, MD
Mason Dixon Hamfest, PO Box 763, Hanover, PA 17331
VE exams \$5.60, 9AM, reg 8AM, Page Evans NE3P, (717) 359-7610
Talk-In 145.410-

Date: Thu, 21 Apr 1994 12:42:01 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
marchbg@network.ucsd.edu
Subject: ARLB036 FCC CALL SIGN UPDATE
To: info-hams@ucsd.edu

QST DE W1AW
ARRL BULLETIN 36 ARLB036
FROM ARRL HEADQUARTERS
NEWINGTON CT APRIL 20, 1994
TO ALL RADIO AMATEURS

SB QST ARL ARLB036
ARLB036 FCC CALL SIGN UPDATE

THE FOLLOWING IS A LIST OF THE FCC'S MOST RECENTLY ISSUED CALL SIGNS
AS OF APRIL 1.

DISTRICT	GROUP A EXTRA	GROUP B ADVANCED	GROUP C TECH/GEN	GROUP D NOVICE
0	AA0QT	KG0ML	++	KB0MIQ
1	AA1JB	KD1UG	N2RPQ	KB1BHC
2	AA2RR	KF2UQ	N2YKM	KB2QXV
3	AA3HM	KE3MQ	N3RUC	KB3BBG
4	AD4RD	KR4QD	++	KE4KXC
5	AB5TP	KJ5WI	++	KC5GCF
6	AC6BN	KO6AI	++	KE6GNH
7	AB7BV	KI7XI	++	KC7BTH
8	AA8ON	KG8HY	++	KB8SBS
9	AA9KM	KF9UW	N9WPG	KB9IXQ

HAWAII	++	AH6NF	WH6TE	WH6CRE
ALASKA	++	AL7PP	WL7RN	WL7CHN
VIRGIN IS.	WP2J	KP2CC	NP2HH	WP2AHU
PUERTO RICO	++	KP4AO	++	WP4MOC

++ALL CALL SIGNS IN THIS GROUP HAVE BEEN ISSUED IN THIS AREA.

--

Marc Grant		Pager : 214-246-1150
home: marchbg@netcom.com	work: marchbg@esy.com	Amateur Radio N5MEI

Date: 22 Apr 94 21:49:36 GMT
 From: sdd.hp.com!col.hp.com!gregt@hplabs.hp.com
 Subject: Confiscated HT
 To: info-hams@ucsd.edu

Steven Adams (sadams@eis.calstate.edu) wrote:
 : If my HT had an extended tx and I had use of a comercial freq. through my
 : business (We have a repeater set up around 452 mhz), could I use my HT
 : to communicate through the repeater (legally)??

NO!

: If no...Why not??

Because your HT is not type-accepted for use in commercial service.

: As long as I don't tx out of bounds, have the correct PL set- what's the
 : harm?

There may be no harm done, but its just not legal.

: Steven Adams
 : sadams@ctp.org
 : --

Greg Tarcza WA200D
 gregt@col.hp.com

Date: 22 Apr 94 22:16:27 GMT
 From: sdd.hp.com!saimiri.prima.wisc.edu!caen!selman@hplabs.hp.com
 Subject: HDN Releases
 To: info-hams@ucsd.edu

In article <2p97i1\$hqm@vixen.cso.uiuc.edu>, ignacy@misz.animal.uiuc.edu writes:

> In <766533788.F00002@ocitor.fidonet>, Lee.Laird@f7009.n124.z1.fidonet.org (Lee Laird) writes:

> >The following files were processed Saturday 4-16-94:

> >.....

>

> I could not find any files. All directories were empty!

>

>

> Ignacy Misztal Ham radio: N09E, SP8FWB

> E-mail: ignacy@uiuc.edu

> University Of Illinois 1207 W. Gregory Dr., Urbana, IL 61801, USA

> tel. (217) 244-3164 Fax: (217) 333-8286

>

Try the mirrored side. Some of them are there.

selman

--

NAME: Selman NAS E-MAIL: selman@umich.edu

DEPT: AERO DEPT.

STATUS: GRADUATE STUDENT

Date: Wed, 20 Apr 1994 23:10:20 GMT

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!EU.net!sunic!trane.uninett.no!

nac.no!ifi.uio.no!wabbit.cc.uow.edu.au!metro!ipso!rwc@network.ucsd.edu

Subject: IPS Daily Report - 20 April 94

To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT

ISSUED AT 20/2330Z APRIL 1994 BY IPS RADIO AND SPACE SERVICES

FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY.

SUMMARY FOR 20 APRIL AND FORECAST UP TO 23 APRIL

No warning is current.

1A. SOLAR SUMMARY

Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 086/029

1B. SOLAR FORECAST

	21 April	22 April	23 April
Activity	Low	Very low	Very low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 085/027

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth: quiet to unsettled

Estimated Indices :	A	K	Observed A Index 19 April
Learmonth	06	2223 2111	
Fredericksburg	10		15
Planetary	09		16

Observed Kp for 19 April: 5344 2233

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
21 Apr	10	Quiet to unsettled.
22 Apr	10	Quiet to unsettled.
23 Apr	10	Quiet to unsettled.

2C. MAGNETIC COMMENT

Quiet conditions expected for next six days.

3A. GLOBAL HF PROPAGATION SUMMARY

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
20 Apr	normal	normal	normal

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
21 Apr	normal	normal	fair
22 Apr	normal	normal	fair
23 Apr	normal	normal	fair

3C. GLOBAL HF PROPAGATION COMMENT

NONE.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were near predicted monthly values

Observed T index for 20 April: 39

Predicted Monthly T Index for April is 40.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
21 Apr	40	Near predicted monthly values.
22 Apr	40	Near predicted monthly values.
23 Apr	40	Near predicted monthly values.

4C. AUSTRALIAN REGION COMMENT

Some spread F observed during local night.

--

IPS Regional Warning Centre, Sydney	IPS Radio and Space Services
email: rwc@ips.oz.au fax: +61 2 4148331	PO Box 5606
RWC Duty Forecaster tel: +61 2 4148329	West Chatswood NSW 2057
Recorded Message tel: +61 2 4148330	AUSTRALIA

Date: Thu, 21 Apr 1994 12:40:35 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
marcbg@network.ucsd.edu
Subject: Keplerian Bulletin 15 ARLK015
To: info-hams@ucsd.edu

ZCZC SK82
QST de W1AW
Keplerian Bulletin 15 ARLK015
>From ARRL Headquarters
Newington, CT April 16, 1994
To all radio amateurs

Thanks to NASA, AMSAT and N3FKV for the following Keplerian data.

Decode 2-line elsets with the following key:

1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

A0-10

1	14129U	83058B	94093.93015575	- .000000105	10000-3 0	2736
2	14129	27.1781	334.0078	6020533	167.5108	219.1680 2.05877978 53285

RS-10/11

1	18129U	87054A	94104.20127577	0.000000016	14274-5 0	8891
2	18129	82.9269	16.1383	0010438	196.2914	163.7905 13.72334612341134

U0-11

1	14781U	84021B	94101.00958292	0.000000306	59703-4 0	6809
---	--------	--------	----------------	-------------	-----------	------

2 14781 97.7900 118.8735 0012594 120.8281 239.4170 14.69188820540441
 RS-12/13
 1 21089U 91007A 94104.30260014 0.00000030 15640-4 0 6798
 2 21089 82.9197 58.8219 0028099 289.1188 70.6929 13.74038581159879
 A0-13
 1 19216U 88051B 94102.44882608 -.000000591 10000-4 0 9010
 2 19216 57.8540 258.2544 7212470 338.9704 2.1469 2.09726746 13130
 U0-14
 1 20437U 90005B 94102.72595379 0.00000044 34216-4 0 9800
 2 20437 98.5909 188.3875 0011861 27.2725 332.9072 14.29836251220236
 A0-16
 1 20439U 90005D 94102.22422065 0.00000035 30574-4 0 7809
 2 20439 98.5999 189.0565 0012191 28.4313 331.7529 14.29890613220173
 D0-17
 1 20440U 90005E 94102.18498366 0.00000054 37689-4 0 7796
 2 20440 98.5997 189.3180 0012323 28.1110 332.0736 14.30029880220185
 W0-18
 1 20441U 90005F 94103.20868419 0.00000027 27434-4 0 7811
 2 20441 98.6004 190.3356 0012767 26.3552 333.8277 14.30004741220330
 L0-19
 1 20442U 90005G 94102.77141414 0.00000065 42093-4 0 7799
 2 20442 98.6011 190.1446 0013248 26.1774 334.0074 14.30100099220281
 F0-20
 1 20480U 90013C 94097.96669648 -.00000006 52518-4 0 6741
 2 20480 99.0290 263.0912 0541461 138.5003 225.8553 12.83224980195126
 A0-21
 1 21087U 91006A 94103.24778531 0.00000093 82657-4 0 4536
 2 21087 82.9451 190.7595 0033903 265.5771 94.1509 13.74537687160664
 U0-22
 1 21575U 91050B 94105.18696717 0.00000099 47940-4 0 4821
 2 21575 98.4391 180.9472 0008536 113.8412 246.3672 14.36907331144038
 K0-23
 1 22077U 92052B 94101.99590421 -.00000037 10000-3 0 3763
 2 22077 66.0840 58.5659 0012448 304.1572 55.8265 12.86285353 78271
 K0-25
 1 22830U 93061H 94098.16232175 0.00000083 50860-4 0 2795
 2 22830 98.5601 172.6843 0012451 25.4816 334.6987 14.28045473 27700
 I0-26
 1 22826U 93061D 94103.67236218 0.00000059 41781-4 0 2778
 2 22826 98.6582 180.1464 0010144 41.2739 318.9209 14.27721247 28481
 A0-27
 1 22825U 93061C 94103.75676341 0.00000039 33835-4 0 2770
 2 22825 98.6585 180.2028 0009625 39.3913 320.7961 14.27617999 28499
 P0-28
 1 22829U 93061G 94102.72059002 0.00000040 33685-4 0 2707
 2 22829 98.6544 179.2203 0010938 32.2906 327.8933 14.28017457 28350
 STS-59
 1 23042U 94020A 94105.25000000 0.00021265 11104-4 10206-4 0 229

2 23042 56.9919 235.9631 0007572 284.1210 37.4442 16.22555238 935

Mir

1 16609U 86017A 94104.80609580 0.00006708 91817-4 0 5668

2 16609 51.6466 143.8890 0015448 142.9508 217.2549 15.58638827466139

Keplerian bulletins are transmitted twice weekly from W1AW.

The next scheduled transmission of these data will be Tuesday,

April 19, 1994, at 2230z on Baudot and AMTOR.

NNNN

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Marc Grant

home: marcdbg@netcom.com

work: marcdbg@esy.com

Pager : 214-246-1150

Amateur Radio N5MEI

Date: 20 Apr 1994 23:50:56 GMT

From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!howland.reston.ans.net!darwin.sura.net!

mother.usf.edu!luna!daly@network.ucsd.edu

Subject: Manual or copy needed -Heathkit DX-20

To: info-hams@ucsd.edu

OMs

I'm still looking to find a manual for an old Heathkit DX-20 cw xtal cw transmitter. If you have a copy of the manual please send me an e-mail message or give me a call. Thanks.

John Daly - WA9WHD

Public Administration Program -SOC107

University of South Florida

Tampa, FL 33620-8100

(813) 974-3508 or fax (813) 974-0832

daly@luna.cas.usf.edu

Thanks again (& will be willing to pay xeroxing & postage also).

73 & Happy Dxing

Date: Wed, 20 Apr 1994 23:09:05 GMT

From: ihnp4.ucsd.edu!swrinde!emory!cs.utk.edu!stc06r.CTD.ORN.L.GOV!fnnews.fnal.gov!

att-in!cbnewsm!jeffj@network.ucsd.edu

Subject: Missing: Good HF Propagation

To: info-hams@ucsd.edu

In article <cowart.766864337@neptune> cowart@convex.com (Michael Cowart) writes:

>ham@wam.umd.edu (Scott Richard Rosenfeld) writes:
>
>>Missing: Decent HF Propagation. Last seen about 2 weeks ago, floating
>>through the ether at around 14.020 MHz. However, it has been slowly
>>going away for about 4 years, since I last worked India with my dipole.
>
>20 meters was wide open last night at 0400Z, maybe longer (that's when I went
>to bed)!
>
>Short skip (300 miles), medium skip (1000 miles) and long skip (South Pacific)!!

I have noticed that after solar flares and geomagnetic storms that the propagation really gets good for the next day or so. Kinda makes you not hate them so bad. 8-)

Jeff

--

Jeff Jones AB6MB | Vote out those who voted for the North American
jeffj@seeker.mystic.com | Free Trade Agreement!
Infolinc BBS 510-778-5929 |

Date: 22 Apr 94 19:24:53 GMT
From: sdd.hp.com!col.hp.com!srgenprp!alanb@hplabs.hp.com
Subject: Nicad Batteries -- The Official Word
To: info-hams@ucsd.edu

I recently acquired an engineering handbook published by Sanyo, maker of "Cadnica" brand nickle-cadmium rechargable batteries. It lays to rest some myths dear to the hearts of radio amateurs. In the following, the quoted material is from Sanyo's book.

Note: "C" is the amp-hour capacity of the battery. For example, if you have a 5 A-hr battery, a charging rate of "0.1C" is 0.5A.

The memory effect:

"Nickle-cadmium batteries have a "memory effect" in which the voltage drops by 2 levels during discharge after shallow charge/discharge cycles. In application when discharge end voltage is highly established, apparent decreases in capacity and operating voltage are shown."

A graph shows a series of discharge curves (voltage versus time) for a battery under the following conditions: (1) Fresh battery, (2) First discharge after 100 cycles, (2) Second discharge after 100 cycles, (3) Third discharge after 100 cycles. The "cycles" consist of a 0.1 C

charge for 10 hours followed by a 1C discharge for 10 minutes. The "discharge curve" is measured after a final 0.1C charge for 16 hours followed by a discharge rate of 1C.

The four curves are almost identical. As near as I can read the graph, The first discharge after 100 memory cycles drops to 1V after about 63 minutes, compared with about 66 minutes for the fresh battery. The second and third discharges show an even smaller difference.

Bottom line: Yes there is a memory effect, but it is very small and not worth worrying about.

Charging:

"As long as a Cadnica battery is charged at an input rate below the specified value [typically 0.1C] internal gas pressure remains at a low level. However, heat generated by gas recombination causes a rise in cell temperature. When overcharging is repeated often, heat deteriorates the cell and shortens its service life."

So don't overcharge excessively. It's OK to leave your battery on the charger overnight (depending on the charger design, up to 18 hours or so if the battery was well-discharged) but don't hook it up to the charger and go away for a week.

Discharging:

"The number of cycles Cadnica batteries can withstand depends on the depth of discharge... When the cell is discharged to a greater depth, the number of cycles decreases."

Some folks have recommended that occasionally you intentionally completely discharge your nicads to eliminate the memory effect. The above implies that that's a bad idea.

Storage:

"Cadnica batteries can be stored at temperatures ranging from -30 degC to 50 degC without essential deterioration in performance. The organic materials, such as gasket or separator, may deteriorate or become deformed at high temperatures during prolonged storage. Thus it is recommended that Cadnica batteries be stored at temperatures below 35 degC if there is a possibility of prolonged storage surpassing 3 months." [35 degC = 95 degF]

"Either charged or discharged Cadnica batteries may be stored indefinitely. ... Though the capacity is recovered with a couple of charge/discharge cycles in either case, the capacity of a discharged

battery is more quickly achieved."

Unlike lead-acid batteries, nicads are perfectly happy being stored in a discharged state. In fact, they prefer it.

"Batteries should be recharged prior to use after prolonged storage."

The reason for that is that various cells in the battery can lose their charge at different rates. If you then use the battery without recharging, the weakest cell can become reverse-charged by the other stronger cells. That can kill a battery.

AL N1AL

Date: 22 Apr 94 13:42:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS\$112.OSCAR.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-112.0
Orbital Elements 112.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM WA5QGD FORT WORTH, TX April 22, 1994
BID: \$ORBS-112.0
TO ALL RADIO AMATEURS BT

Satellite: A0-10
Catalog number: 14129
Epoch time: 94105.57495596
Element set: 274
Inclination: 27.1808 deg
RA of node: 332.1525 deg
Eccentricity: 0.6020888
Arg of perigee: 170.5875 deg
Mean anomaly: 209.8109 deg
Mean motion: 2.05879133 rev/day
_FDW;yQ(&4-vYokAh0`Y:sYl>9D>-
zoWazC2@A>K*-I3Vy7w}&7`&)tJ})S+7^)G7W3SL+\$Ee%QRY

Date: Thu, 21 Apr 94 08:30:54 -0500
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!noc.near.net!news.delphi.com!
usenet@network.ucsd.edu
To: info-hams@ucsd.edu

References <2o78j3\$o3q@apakabar.cc.columbia.edu>,
<STEVE.94Apr19184558@hobbess.vigra.com>, <1994Apr20.040432.7847@ccc.amdahl.com>
Subject : Re: Kenwood TH-78A *OR* Yaesu FT-530

David Sharpe <dws30@p1dbg02cd.amdahl.com> writes:

> I went with the FT-530. It just has too many features I could not
> resist. One of the things I was looking at is what the Sr. Ham's were

I wish you the best with it, but I contend that the VFO setup is pretty
weak in comparison with the 78, and IMD rejection no better. The PL scan
is nice, but only useful on very active machines that pass pl to the output.

Not bashing yer rig, my dad has one and likes it a bunch,

best of luck,

n1qdq

End of Info-Hams Digest V94 #445
